Eight sites did not fit into one of the four major groups (Figure 15). Masonboro Island in the North Carolina Reserve was very dissimilar to other sites because of its small watershed, high permeability, and high percentage of wetland and shellfish. High temperature and summer hypoxia occurrences differentiated Blackwater River in the Rookery Bay Reserve from other sites. Two sites in the Tijuana River Estuary NERR with 100% urban/developed land and extremely low precipitation were also very dissimilar from other NERR sites. Large watersheds at NARTW and CBVGI distinguished these two sites from others. Similarly, the extremely large watershed sizes at HUDTS and HUDTN distinguished these sites from other NERR sites. With the exception of nine reserves (Padilla Bay, Wells, Narragansett Bay, Mullica River, North Inlet-Winyah Bay, North Carolina, Chesapeake Bay-Virginia, Delaware, and Weeks Bay), at least two sites within each reserve were more similar to each other than to sites located in other Reserves.

The dendrogram of site attributes produced four major groupings (Figure 16). Within group one, hypoxia, warm water temperature, and wetland area were most similar, which reinforces the correlative relationship noted previously. Among the sites within group 2, supersaturation and more alkaline water were most similar. Among the sites within group 3, agricultural land and turbidity were similar. Among the sites within group 4, the amount of forested land and precipitation were most similar. These findings were consistent with the results from the correlation analyses.

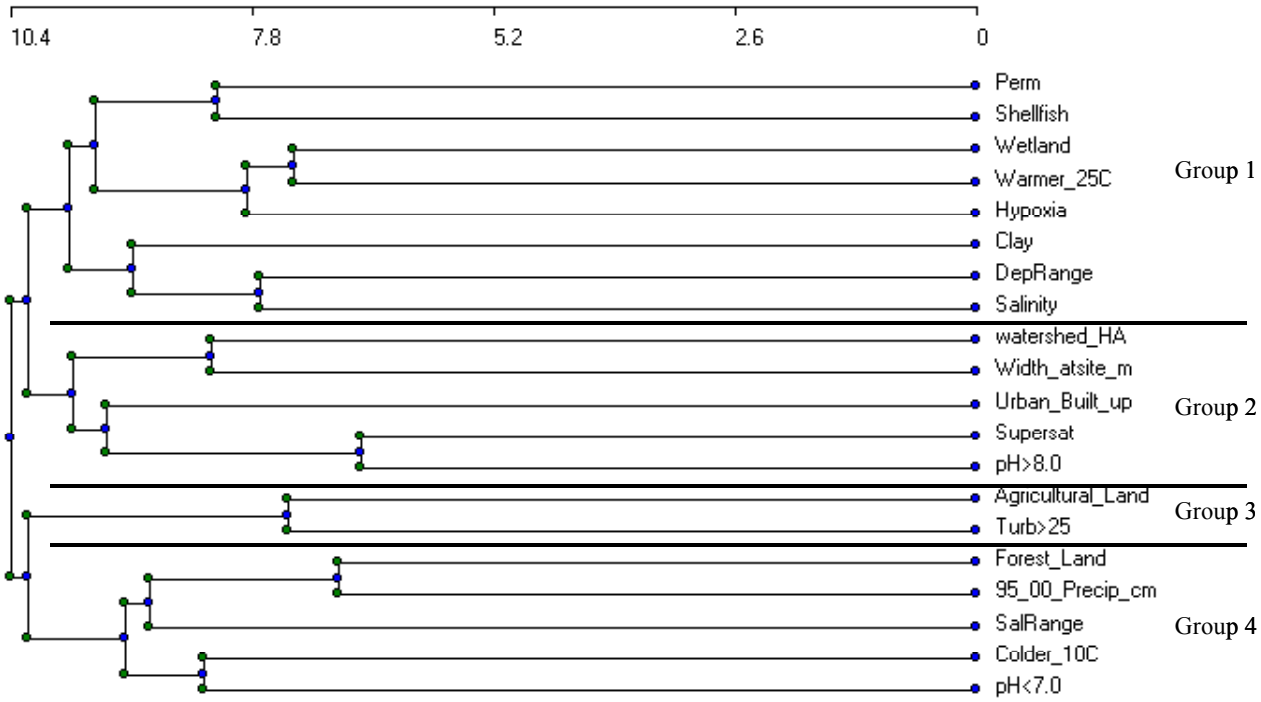

Figure 16. Dendrogram of site attributes for 51 NERRs examined using cluster analysis.